UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/895,231	06/29/2001	David Michael Koelle	AUS920010286US1	8640

35525	7590	11/02/2004

IBM CORP (YA)
C/O YEE & ASSOCIATES PC
P.O. BOX 802333
DALLAS, TX 75380

EXAMINER
PANNALA, SATHYANARAYA R

ART UNIT	PAPER NUMBER
2167	

DATE MAILED: 11/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/895,231	KOELLE ET AL.
	Examiner	Art Unit
	Sathyanarayan Pannala	2167

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 June 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-29* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   The Application, 09/895231 filed on 6/29/2001 has been examined.

Claims 1-29 are pending in this Office Action.

Specification

2.   The abstract is objected because the abstract is a copy of the summary.

Corrected abstract of the disclosure is required and must be presented on a

separate sheet, apart from any other text. Applicant is reminded of the proper

content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the

patent and should include that which is new in the art to which the invention

pertains. If the patent is of a basic nature, the entire technical disclosure may be

new in the art, and the abstract should be directed to the entire disclosure. If the

patent is in the nature of an improvement in an old apparatus, process, product,

or composition, the abstract should include the technical disclosure of the

improvement. In certain patents, particularly those for compounds and

compositions, wherein the process for making and/or the use thereof are not

obvious, the abstract should set forth a process for making and/or use thereof. If

the new technical disclosure involves modifications or alternatives, the abstract

should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of

the invention and should not compare the invention with the prior art.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35

U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section
>
> 122(b), by another filed in the United States before the invention by the applicant for patent or
>
> (2) a patent granted on an application for patent by another filed in the United States before
>
> the invention by the applicant for patent, except that an international application filed under
>
> the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an
>
> application filed in the United States only if the international application designated the United
>
> States and was published under Article 21(2) of such treaty in the English language.

4.   Claims 1-29 are rejected under 35 U.S.C. 102(e) as being anticipated by

Kenner et al. (US Patent 6,496,856) hereinafter Kenner.

5.   As per independent claim 1, Kenner teaches a video clip storage and

retrieval system for user to receive comprehensive data collected from one or

more databases by request from a user's multimedia computer. The user

request is transmitted to the user's primary index manager via a local storage

and retrieval unit (SRU) (col. 3, lines 6-10 and 34-37). Kenner teaches the

claimed step of "organizing the set of data into a plurality of related sets of data" as the SRU command logic sees to the duplication of popular videos on alternate SRUs 26. It also places copies of video segments on SRUs geographically closer to the user most interest in those videos. Duplication of data is done during the non-peak periods of the system (Fig. 1, col. 8, lines 27-32). Further, Kenner teaches the claimed step of "assigning, by a set of services, management of a related set of data to a service within the distributed set of services based on an optimization criteria" as the primary index manager (PIM) determines whether it is managing an extended SRU 26 based on searching through audio-visual data index database to identify the video clips that have been accessed most frequently (FDVs) (the optimization criteria is the most frequently accessing compared a predetermined value.) The video clips are duplicated on the identified extended SRUs. (Fig. 1, col. 8, lines 35-47). Finally, Kenner teaches the claimed step of "responsive to failure of a service within the distributed set of services, transferring management of the related set of data managed by the failed service to another service within the distributed set of services" as whenever an SRU fails to deliver the requested video clip, the DSI 30 increments the SRU under-run counter for that SRU and eventually communicates this information to the PIM 22. The PIM 22 directs further requests to alternate SRUs for video clip information (Fig. 1, col. 14, lines 20-28).

6.   As per dependent claim 2, Kenner teaches the claimed step of "the

optimization criteria is based on location of the service within the distributed set

of services" as the Audio-visual data index database is searched to determine

most frequently accessed SRUs in comparison to predetermined value. Those

extended SRUs are selected for the duplication or transferal. The selected SRUs

are evaluated to whether they can accept duplicate copy of the video clip. If so,

the FDV is duplicated on the identified extended SRU 26 (Fig. 1, col. 8,

lines 38-47).

7.   As per dependent claim 3, Kenner teaches the claimed step of "detecting

the failed service by a set of remaining services within the distributed set of

services" as whenever an SRU fails to deliver the requested video clip, the DSI

30 increments the SRU under-run counter for that SRU and eventually

communicates this information to the PIM 22 (Fig. 1, col. 14, lines 20-23).

Further, Kenner teaches the claimed step of "examining, by the set of remaining

services within the distributed set of services, the related set of data managed by

the failed service" as if the SRU under-run count exceeds a predetermined

threshold value the PIM 32 directs further requests away form this affected SRU

by the DSI 30 query alternate SRUs for the video clip information (Fig. 1, col. 14,

lines 23-28).

8.   As per dependent claim 4, Kenner teaches the claimed step of

"determining whether data within the related set of data are at the same location

as a service within the set of remaining services" as in the event that the video

clip is only stored at this location, then a delay will be encountered as the DSI 30

waits for the video information to be downloaded. The PIM 22 will also direct that

the number of FDVs to be decremented for this affected extended SRU 26

(Fig. 1, col. 14, lines 28-32). Further, Kenner teaches the claimed step of

"responsive to data within the related set of data at the same location as a

service within the set of remaining services, attaching the data to the service" as

the SRU under-run counter parameter identifies the location of over-accessed

SRUs, audio-visual data will be moved or copied from heavily loaded SRUs to

lightly loaded SRUs in an effort to distribute or flatten SRU demand (Fig. 1,

col. 14, lines 33-38).

9.   As per dependent claim 5, Kenner teaches the claimed step of

"responsive to an additional service joining the distributed set of services,

querying management of the data within the related sets of data" as data is

preferably maintained on the extended SRUs 26 which are most often queried for

the data, duplicated on local SRUs 18 which most often request the data or may

be duplicated on other remote SRUs 38 as space allows (Fig. 1, col. 14,.

lines 43-46). Further, Kenner teaches the claimed step of "assigning

management of a related set of data to the additional service within the

distributed set of services based on the optimization criteria" as the supply and

demand approach mediated by PIM 22 in response to DSI monitoring inputs ,

provides fast access to most requested information and efficient storage with in a

maximum of useful redundancy without waste or loss of performance. The

network is also configured always to store each audio-visual entry in at least one

other location (Fig. 1, col. 14, lines 47-53).

10. As per independent claim 6, Kenner teaches a video clip storage and

retrieval system for user to receive comprehensive data collected from one or

more databases by request from a user's multimedia computer. The user

request is transmitted to the user's primary index manager via a local storage

and retrieval unit (SRU) (col. 3, lines 6-10 and 34-37). Kenner teaches the

claimed step of "organizing the set of data into a plurality of related

sets of data" as the SRU command logic sees to the duplication of popular

videos on alternate SRUs 26. It also places copies of video segments on SRUs

geographically closer to the user most interest in those videos. Duplication of

data is done during the non-peak periods of the system (Fig. 1, col. 8,

lines 27-32). Further, Kenner teaches the claimed step of "assigning, by a set of

services, management of a related set of data to a service within the distributed

set of services based on an optimization criteria" as the primary index manager

(PIM) determines whether it is managing an extended SRU 26 based on

searching through audio-visual data index database to identify the video clips

that have been accessed most frequently (FDVs) (the optimization criteria is the

most frequently accessing compared a predetermined value). The video clips

are duplicated on the identified extended SRUs. (Fig. 1, col. 8, lines 35-47).

Further, Kenner teaches the claimed step of "responsive to an additional service

joining the distributed set of services, querying management of the data within

the related sets of data" as the SRU under-run counter parameter identifies the

location of over-accessed SRUs, audio-visual data will be moved or copied from

heavily loaded SRUs to lightly loaded SRUs in an effort to distribute or flatten

SRU demand (Fig. 1, col. 14, lines 33-38). Finally, Kenner teaches the claimed

step of "assigning management of a related set of data to the additional service

within the distributed set of services based on the optimization criteria" as the

SRU under-run counter parameter identifies the location of over-accessed SRUs,

audio-visual data will be moved or copied from heavily loaded SRUs to lightly

loaded SRUs in an effort to distribute or flatten SRU demand (Fig. 1, col. 14,

lines 33-38).

11.   As per dependent claim 7, Kenner teaches the claimed step of "the

optimization criteria is based on location of the service within the distributed set

of services" as the Audio-visual data index database is searched to determine

most frequently accessed SRUs in comparison to predetermined value. Those

extended SRUs are selected for the duplication or transferal. The selected SRUs

are evaluated to whether they can accept duplicate copy of the video clip. If so,

the FDV is duplicated on the identified extended SRU 26 (Fig. 1, col. 8,

lines 38-47).

12.   As per dependent claim 8, Kenner teaches the claimed step of "detecting

a failed service in the distributed set of services by a set of remaining services

within the distributed set of services" as whenever an SRU fails to deliver the

requested video clip, the DSI 30 increments the SRU under-run counter for that

SRU and eventually communicates this information to the PIM 22 (Fig. 1, col. 14,

lines 20-23). Further, Kenner teaches the claimed step of "examining, by the set

of remaining services within the distributed set of services, the related set of data

managed by the failed service" as if the SRU under-run count exceeds a

predetermined threshold value the PIM 32 directs further requests away form this

affected SRU by the DSI 30 query alternate SRUs for the video clip information

(Fig. 1, col. 14, lines 23-28).

13.   As per dependent claim 9, Kenner teaches the claimed step of

"determining whether data within the related set of data are at the same location

as a service within the set of remaining services" as in the event that the video

clip is only stored at this location, then a delay will be encountered as the DSI 30

waits for the video information to be downloaded. The PIM 22 will also direct that

the number of FDVs to be decremented for this affected extended SRU 26

(Fig. 1, col. 14, lines 28-32). Further, Kenner teaches the claimed step of

"responsive to data within the related set of data at the same location as a

service within the set of remaining services, attaching the data to the service" as

the SRU under-run counter parameter identifies the location of over-accessed

SRUs, audio-visual data will be moved or copied from heavily loaded SRUs to

lightly loaded SRUs in an effort to distribute or flatten SRU demand (Fig. 1,

col. 14, lines 33-38).

14.   As per independent claim 10, which claims a system. Kenner teaches a

video clip storage and retrieval system for user to receive comprehensive data

collected from one or more databases by request from a user's multimedia

computer. The user request is transmitted to the user's primary index manager

via a local storage and retrieval unit (SRU) (col. 3, lines 6-10 and 34-37).

Kenner teaches the claimed "a system bus" as the information obtained on a high

speed network 24 or communication line 16   (Fig. 1, col. 7, line 66 to col. 8, line

2). Further, Kenner teaches the claimed "a memory, including a set of

instructions, functionally connected to the system bus" as the local storage and

retrieval unit SRU 18 may comprise a file server for a local area network, with

one or more integral or connected storage devices and each terminal 14 interacts

with the local SRU 18 via a network connection, e.g. as a network node, using

conventional network protocols and topologies (Fig. 1, col. 6, lines 14-20).

Further, Kenner teaches the claimed "a processing unit functionally connected to

the system bus" as the connections between terminal 14 and the local SRU 18

can be within the same computer or between two or more computers located

within a building, which are linked together on a local area network (Fig. 1, col. 6,

lines 14-20). Further, Kenner teaches the claimed "the processing unit executes

the set of instructions from the memory to organize a set of data into a plurality of

related sets of data" as the SRU command logic sees to the duplication of

popular videos on alternate SRUs 26. It also places copies of video segments on

SRUs geographically closer to the user most interest in those videos.

Duplication of data is done during the non-peak periods of the system (Fig. 1,

col. 8, lines 27-32). Further, Kenner teaches the claimed "the data in each

related set of data has at least one attribute between members, the processing

unit assigns, by a set of services, management of a related set of data to a

service within the distributed set of services based on an optimization criteria" as

the primary index manager (PIM) determines whether it is managing an extended

SRU 26 based on searching through audio-visual data index database to identify

the video clips that have been accessed most frequently (FDVs) (the optimization

criteria is the most frequently accessing compared a predetermined value). The

video clips are duplicated on the identified extended SRUs. (Fig. 1, col. 8,

lines 35-47). Finally, Kenner teaches the claimed "responsive to a failed service

within the distributed set of services, the processing unit transfers management

of the related set of data managed by the failed service to another service within

the distributed set of services" as whenever an SRU fails to deliver the requested

video clip, the DSI 30 increments the SRU under-run counter for that SRU and

eventually communicates this information to the PIM 22. The PIM 22 directs

further requests to alternate SRUs for video clip information (Fig. 1, col. 14,

lines 20-28).

15.   As per independent claim 11, which claims for a system. Kenner teaches

a video clip storage and retrieval system for user to receive comprehensive data

collected from one or more databases by request from a user's multimedia

computer. The user request is transmitted to the user's primary index manager

via a local storage and retrieval unit (SRU) (col. 3, lines 6-10 and 34-37).

Kenner teaches the claimed "a system bus" as the information obtained on a high

speed network 24 or communication line 16   (Fig. 1, col. 7, line 66 to col. 8, line

2). Further, Kenner teaches the claimed "a memory, including a set of

instructions, functionally connected to the system bus" as the local storage and

retrieval unit SRU 18 may comprise a file server for a local area network, with

one or more integral or connected storage devices and each terminal 14 interacts

with the local SRU 18 via a network connection, e.g. as a network node, using

conventional network protocols and topologies (Fig. 1, col. 6, lines 14-20).

Further, Kenner teaches the claimed "a processing unit functionally connected to

the system bus" as the connections between terminal 14 and the local SRU 18

can be within the same computer or between two or more computers located

within a building, which are linked together on a local area network (Fig. 1, col. 6,

lines 14-20). Further, Kenner teaches the claimed "the processing unit executes

the set of instructions from the memory to organize a set of data into a plurality of

related sets of data" as the SRU command logic sees to the duplication of

popular videos on alternate SRUs 26. It also places copies of video segments on

SRUs geographically closer to the user most interest in those videos.

Duplication of data is done during the non-peak periods of the system (Fig. 1,

col. 8, lines 27-32). Further, Kenner teaches the claimed step of "the data in

each related set of data has at least one attribute between members, the

processing unit assigns, by a set of services, management of a related set of

data to a service within the distributed set of services based on an optimization

criteria, responsive to an additional service joining the distributed set of

services" as whenever an SRU fails to deliver the requested video clip, the DSI

30 increments the SRU under-run counter for that SRU and eventually

communicates this information to the PIM 22. The PIM 22 directs further

requests to alternate SRUs for video clip information (Fig. 1, col. 14, lines 20-28).

Finally, Kenner teaches the claimed "the processing unit queries management of

the data within the related sets of data, and the processing unit assigns

management of a related set of data to the additional service within the

distributed set of services based on the optimization criteria" as the SRU under-

run counter parameter identifies the location of over-accessed SRUs, audio-

visual data will be moved or copied from heavily loaded SRUs to lightly loaded

SRUs in an effort to distribute or flatten SRU demand (Fig. 1, col. 14,

lines 33-38).

16.   As per independent claim 12, Kenner teaches a video clip storage and

retrieval system for user to receive comprehensive data collected from one or

more databases by request from a user's multimedia computer. The user

request is transmitted to the user's primary index manager via a local storage

and retrieval unit (SRU) (col. 3, lines 6-10 and 34-37). Kenner teaches the

claimed "organizing means for organizing the set of data into a plurality of related

sets of data, wherein the data in each related set of data has at least one

attribute between members" as the SRU command logic sees to the duplication

of popular videos on alternate SRUs 26. It also places copies of video segments

on SRUs geographically closer to the user most interest in those videos.

Duplication of data is done during the non-peak periods of the system (Fig. 1,

col. 8, lines 27-32). Further, Kenner teaches the claimed "assigning means for

assigning, by a set of services, management of a related set of data to a service

within the distributed set of services based on an optimization criteria" as the

primary index manager (PIM) determines whether it is managing an extended

SRU 26 based on searching through audio-visual data index database to identify

the video clips that have been accessed most frequently (FDVs) (the optimization

criteria is the most frequently accessing compared a predetermined value)

(Fig. 1, col. 8, lines 35-47). The video clips are duplicated on the identified

extended SRUs. (Fig. 1, col. 8, lines 35-47). Finally, Kenner teaches the claimed

"transferring means, responsive to a failed service within the distributed set of

services, for transferring management of the related set of data managed by the

failed service to another service within the distributed set of services" as

whenever an SRU fails to deliver the requested video clip, the DSI 30 increments

the SRU under-run counter for that SRU and eventually communicates this

information to the PIM 22. The PIM 22 directs further requests to alternate SRUs

for video clip information (Fig. 1, col. 14, lines 20-28).

17.   As per dependent claim 13, Kenner teaches the claimed "the optimization

criteria is based on location of the service within the distributed set of services"

as the Audio-visual data index database is searched to determine most

frequently accessed SRUs in comparison to predetermined value. Those

extended SRUs are selected for the duplication or transferal. The selected SRUs

are evaluated to whether they can accept duplicate copy of the video clip. If so,

the FDV is duplicated on the identified extended SRU 26 (Fig. 1, col. 8,

lines 38-47).

18.   As per dependent claim 14, Kenner teaches the claimed "detecting means

for detecting the failed service by a set of remaining services within the

distributed set of services" as whenever an SRU fails to deliver the requested

video clip, the DSI 30 increments the SRU under-run counter for that SRU and

eventually communicates this information to the PIM 22 (Fig. 1, col. 14,

lines 20-23). Further, Kenner teaches the claimed "examining means for

examining, by the set of remaining services within the distributed set of services,

the related set of data managed by the failed service" as if the SRU under-run

count exceeds a predetermined threshold value the PIM 32 directs further

requests away form this affected SRU by the DSI 30 query alternate SRUs for

the video clip information (Fig. 1, col. 14, lines 23-28).

19.   As per dependent claim 15, Kenner teaches the claimed "determining

means for determining whether data within the related set of data are at the

same location as a service within the set of remaining services " as in the event

that the video clip is only stored at this location, then a delay will be encountered

as the DSI 30 waits for the video information to be downloaded. The PIM 22 will

also direct that the number of FDVs to be decremented for this affected extended

SRU 26 (Fig. 1, col. 14, lines 28-32). Further, Kenner teaches the claimed

"attaching means, responsive to data within the related set of data at the same

location as a service within the set of remaining services, for attaching the data to

the services" as the SRU under-run counter parameter identifies the location of

over-accessed SRUs, audio-visual data will be moved or copied from heavily

loaded SRUs to lightly loaded SRUs in an effort to distribute or flatten SRU

demand (Fig. 1, col. 14, lines 33-38).

20.   As per dependent claim 16, Kenner teaches the claimed "querying means,

responsive to an additional service joining the distributed set of services, for

querying management of the data within the related sets of data" as data is

preferably maintained on the extended SRUs 26 which are most often queried for

the data, duplicated on local SRUs 18 which most often request the data or may

be duplicated on other remote SRUs 38 as space allows (Fig. 1, col. 14,

lines 43-46). Further, Kenner teaches the claimed "assigning means for

assigning management of a related set of data to the additional service within the

distributed set of services based on the optimization criteria" as the supply and

demand approach mediated by PIM 22 in response to DSI monitoring inputs ,

provides fast access to most requested information and efficient storage with in a

maximum of useful redundancy without waste or loss of performance. The

network is also configured always to store each audio-visual entry in at least one

other location (Fig. 1, col. 14, lines 47-53).

21.   As per independent claim 17, which claims for a system. Kenner teaches

a video clip storage and retrieval system for user to receive comprehensive data

collected from one or more databases by request from a user's multimedia

computer. The user request is transmitted to the user's primary index manager

via a local storage and retrieval unit (SRU) (col. 3, lines 6-10 and 34-37).

Kenner teaches the claimed step of "organizing means for organizing the set of

data into a plurality of related sets of data" as the SRU command logic sees to

the duplication of popular videos on alternate SRUs 26. It also places copies of

video segments on SRUs geographically closer to the user most interest in those

videos. Duplication of data is done during the non-peak periods of the system

(Fig. 1, col. 8, lines 27-32). Further, Kenner teaches the claimed step of

"assigning means for assigning, by a set of services, management of a related

set of data to a service within the distributed set of services based on an

optimization criteria" as the primary index manager (PIM) determines whether it

is managing an extended SRU 26 based on searching through audio-visual data

index database to identify the video clips that have been accessed most

frequently (FDVs) (the optimization criteria is the most frequently accessing

compared a predetermined value) (Fig. 1, col. 8, lines 35-47). The video clips are

duplicated on the identified extended SRUs. (Fig. 1, col. 8, lines 35-47). Further,

Kenner teaches the claimed step of "querying means, responsive to an additional

service joining the distributed set of services, for querying management of the

data within the related sets of data" as whenever an SRU fails to deliver the

requested video clip, the DSI 30 increments the SRU under-run counter for that

SRU and eventually communicates this information to the PIM 22. The PIM 22

directs further requests to alternate SRUs for video clip information (Fig. 1,

col. 14, lines 20-28). Finally, Kenner teaches the claimed step of "assigning

means for assigning management of a related set of data to the additional

service within the distributed set of services based on the optimization criteria" as

the SRU under-run counter parameter identifies the location of over-accessed

SRUs, audio-visual data will be moved or copied from heavily loaded SRUs to

lightly loaded SRUs in an effort to distribute or flatten SRU demand (Fig. 1,

col. 14, lines 33-38).

22.   As per dependent claim 18, Kenner teaches the claimed step of "the

optimization criteria is based on location of the service within the distributed set

of services" as the Audio-visual data index database is searched to determine

most frequently accessed SRUs in comparison to predetermined value. Those

extended SRUs are selected for the duplication or transferal. The selected SRUs

are evaluated to whether they can accept duplicate copy of the video clip. If so,

the FDV is duplicated on the identified extended SRU 26 (Fig. 1, col. 8,

lines 38-47).

23.   As per dependent claim 19, Kenner teaches the claimed step of "detecting

means for detecting a failed service in the distributed set of services by a set of

remaining services within the distributed set of services" as whenever an SRU

fails to deliver the requested video clip, the DSI 30 increments the SRU under-

run counter for that SRU and eventually communicates this information to the

PIM 22 (Fig. 1, col. 14, lines 20-23). Further, Kenner teaches the claimed step of

"examining means for examining, by the set of remaining services within the

distributed set of services, the related set of data managed by the failed

service" as if the SRU under-run count exceeds a predetermined threshold value

the PIM 32 directs further requests away form this affected SRU by the DSI 30

query alternate SRUs for the video clip information (Fig. 1, col. 14, lines 23-28).

24.   As per dependent claim 20, Kenner teaches the claimed step of

"determining means for determining whether data within the related set of data

are at the same location as a service within the set of remaining services " as in

the event that the video clip is only stored at this location, then a delay will be

encountered as the DSI 30 waits for the video information to be downloaded.

The PIM 22 will also direct that the number of FDVs to be decremented for this

affected extended SRU 26 (Fig. 1, col. 14, lines 28-32). Further, Kenner teaches

the claimed step of " attaching means, responsive to data within the related set of

data at the same location as a service within the set of remaining service,

attaching the data to the service " as the SRU under-run counter parameter

identifies the location of over-accessed SRUs, audio-visual data will be moved or

copied from heavily loaded SRUs to lightly loaded SRUs in an effort to distribute

or flatten SRU demand (Fig. 1, col. 14, lines 33-38).

25.   As per independent claim 21, which claims for a program product.

Kenner teaches a video clip storage and retrieval system for user to receive

comprehensive data collected from one or more databases by request from a

user's multimedia computer. The user request is transmitted to the user's

primary index manager via a local storage and retrieval unit (SRU) (col. 3,

lines 6-10 and 34-37). Kenner teaches the claimed "instructions for organizing

the set of data into a plurality of related sets of data" as the SRU command logic

sees to the duplication of popular videos on alternate SRUs 26. It also places

copies of video segments on SRUs geographically closer to the user most

interest in those videos. Duplication of data is done during the non-peak periods

of the system (Fig. 1, col. 8, lines 27-32). Further, Kenner teaches the claimed

"instructions for assigning, by a set of services, management of a related set of

data to a service within the distributed set of services based on an optimization

criteria" as the primary index manager (PIM) determines whether it is managing

an extended SRU 26 based on searching through audio-visual data index

database to identify the video clips that have been accessed most frequently

(FDVs) (the optimization criteria is the most frequently accessing compared a

predetermined value). The video clips are duplicated on the identified extended

SRUs. (Fig. 1, col. 8, lines 35-47). Finally, Kenner teaches the claimed

"instructions, responsive to a failed service within the distributed set of services,

for transferring management of the related set of data managed by the failed

service to another service within the distributed set of services" as whenever an

SRU fails to deliver the requested video clip, the DSI 30 increments the SRU

under-run counter for that SRU and eventually communicates this information to

the PIM 22. The PIM 22 directs further requests to alternate SRUs for video clip

information (Fig. 1, col. 14, lines 20-28).

26.   As per dependent claim 22, Kenner teaches the claimed "the optimization

criteria is based on location of the service within the distributed set of services"

as the Audio-visual data index database is searched to determine most

frequently accessed SRUs in comparison to predetermined value. Those

extended SRUs are selected for the duplication or transferal. The selected SRUs

are evaluated to whether they can accept duplicate copy of the video clip. If so,

the FDV is duplicated on the identified extended SRU 26 (Fig. 1, col. 8,

lines 38-47).

27.   As per dependent claim 23, Kenner teaches the claimed "instructions for

detecting the failed service by a set of remaining service within the distributed set

of services" as whenever an SRU fails to deliver the requested video clip, the DSI

30 increments the SRU under-run counter for that SRU and eventually

communicates this information to the PIM 22 (Fig. 1, col. 14, lines 20-23).

Further, Kenner teaches the claimed "instructions for examining, by the

set of remaining services within the distributed set of services, the related

set of data managed by the failed service" as if the SRU under-run count

exceeds a predetermined threshold value the PIM 32 directs further requests

away form this affected SRU by the DSI 30 query alternate SRUs for the video

clip information (Fig. 1, col. 14, lines 23-28).

28.   As per dependent claim 24, Kenner teaches the claimed "instructions for

determining whether data within the related set of data are at the same location

as a service within the set of remaining services " as in the event that the video

clip is only stored at this location, then a delay will be encountered as the DSI 30

waits for the video information to be downloaded. The PIM 22 will also direct that

the number of FDVs to be decremented for this affected extended SRU 26

(Fig. 1, col. 14, lines 28-32). Further, Kenner teaches the claimed "instructions,

responsive to data within the related set of data at the same location as a service

within the set of remaining services, for attaching the data to the service" as the

SRU under-run counter parameter identifies the location of over-accessed SRUs,

audio-visual data will be moved or copied from heavily loaded SRUs to lightly

loaded SRUs in an effort to distribute or flatten SRU demand (Fig. 1, col. 14,

lines 33-38).

29.   As per dependent claim 25, Kenner teaches the claimed "instructions,

responsive to an additional service joining the distributed set of service, for

querying management of the data within the related sets of data" as data is

preferably maintained on the extended SRUs 26 which are most often queried for

the data, duplicated on local SRUs 18 which most often request the data or may

be duplicated on other remote SRUs 38 as space allows (Fig. 1, col. 14,

lines 43-46). Further, Kenner teaches the claimed "instructions for assigning

management of a related set of data to the additional service within the

distributed set of services based on the optimization criteria" as the supply and

demand approach mediated by PIM 22 in response to DSI monitoring inputs ,

provides fast access to most requested information and efficient storage with in a

maximum of useful redundancy without waste or loss of performance. The

network is also configured always to store each audio-visual entry in at least one

other location (Fig. 1, col. 14, lines 47-53).

30.   As per independent claim 26, which claims for a program product. Kenner

teaches a video clip storage and retrieval system for user to receive

comprehensive data collected from one or more databases by request from a

user's multimedia computer. The user request is transmitted to the user's

primary index manager via a local storage and retrieval unit (SRU) (col. 3, lines

6-10 and 34-37). Kenner teaches the claimed step of "instructions for organizing

the set of data into a plurality of related sets of data" as the SRU command logic

sees to the duplication of popular videos on alternate SRUs 26. It also places

copies of video segments on SRUs geographically closer to the user most

interest in those videos. Duplication of data is done provides the (Fig. 1, col. 8,

lines 27-32). Further, Kenner teaches the claimed step of "instructions for

assigning, by a set of services, management of a related set of data to a service

within the distributed set of services based on an optimization criteria " as the

primary index manager (PIM) determines whether it is managing an extended

SRU 26 based on searching through audio-visual data index database to identify

the video clips that have been accessed most frequently (FDVs) (the optimization

criteria is the most frequently accessing compared a predetermined value.) The

video clips are duplicated on the identified extended SRU (Fig. 1, col. 8,

lines 35-47). Further, Kenner teaches the claimed step of "instructions,

responsive to an additional service joining the distributed set of services, for

querying management of the data within the related sets of data " as whenever

an SRU fails to deliver the requested video clip, the DSI 30 increments the SRU

under-run counter for that SRU and eventually communicates this information to

the PIM 22. The PIM 22 directs further requests to alternate SRUs for video clip

information (Fig. 1, col. 14, lines 20-28). Finally Kenner teaches the claimed

"instructions for assigning management of a related set of data to the additional

service within the distributed set of services based on the optimization criteria" as

the SRU under-run counter parameter identifies the location of over-accessed

SRUs, audio-visual data will be moved or copied from heavily loaded SRUs to

lightly loaded SRUs in an effort to distribute or flatten SRU demand (Fig. 1,

col. 14, lines 33-38).

31.   As per dependent claim 27, Kenner teaches the claimed step of "the

optimization criteria is based on location of the service within the distributed set

of services" as the Audio-visual data index database is searched to determine

most frequently accessed SRUs in comparison to predetermined value. Those

extended SRUs are selected for the duplication or transferal. The selected SRUs

are evaluated to whether they can accept duplicate copy of the video clip. If so,

the FDV is duplicated on the identified extended SRU 26 (Fig. 1, col. 8,

lines 38-47).

32.   As per dependent claim 28, Kenner teaches the claimed "instructions for

detecting a failed service in the distributed set of services by a set of remaining

services within the distributed set of services " as whenever an SRU fails to

deliver the requested video clip, the DSI 30 increments the SRU under-run

counter for that SRU and eventually communicates this information to the PIM 22

(Fig. 1, col. 14, lines 20-23). Further, Kenner teaches the claimed step of

"instructions for examining, by the set of remaining services within the

distributed set of services, the related set of data managed by the failed

service" as if the SRU under-run count exceeds a predetermined threshold value

the PIM 32 directs further requests away form this affected SRU by the DSI 30

query alternate SRUs for the video clip information (Fig. 1, col. 14, lines 23-28).

33.   As per dependent claim 29, Kenner teaches the claimed step of

"instructions for determining whether data within the related set of data are at the

same location as a service within the set of remaining services" as in the event

that the video clip is only stored at this location, then a delay will be encountered

as the DSI 30 waits for the video information to be downloaded. The PIM 22 will

also direct that the number of FDVs to be decremented for this affected extended

SRU 26 (Fig. 1, col. 14, lines 28-32). Further, Kenner teaches the claimed step

of "instructions, responsive to data within the related set of data at the same

location as a service within the set of remaining services, for attaching the

data to the service " as the SRU under-run counter parameter identifies the

location of over-accessed SRUs, audio-visual data will be moved or copied from

heavily loaded SRUs to lightly loaded SRUs in an effort to distribute or flatten
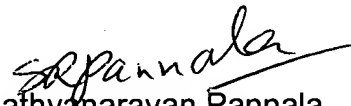
SRU demand (Fig. 1, col. 14, lines 33-38).

Conclusion

Any inquiry concerning this communication or earlier communications from

the examiner should be directed to Sathyanarayan Pannala whose telephone

number is (571) 272-4115. The examiner can normally be reached on 8:00 am -

5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the

examiner's supervisor, John Breene can be reached on (571) 272-4115. The fax

phone number for the organization where this application or proceeding is

assigned is 703-872-9306.

Information regarding the status of an application may be obtained from

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PAIR. Status information for unpublished applications is available through

Private PAIR only. For more information about the PAIR system, see http://pair-

direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-

free).

Sathyanarayan Pannala
Examiner
Art Unit 2167

srp
October 30, 2004